

Appl. No.: 09/823,373
Reply and Amendment, transmitted 7 June 2004
To Final Office Action, mailed 22 April

Docket No.: BC1032 US NA

REMARKS

Allowable Subject Matter:

Sections 9. and 10.: Applicants note that the currently allowed claims are Claims 10, 12, 14, and 20, drawn to plasmids, expression cassettes, and transformed microorganisms; and Claims 47 and 49, drawn to isolated nucleic acid fragments.

Patentability Under 35 USC § 102(b):

Sections 3. and 4.: Independent Claim 1 and Claims 9, 11, 13, and 15 dependent on Claim 1 stand rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi *et al.* (*Biochemistry* (1992) 31:9000-9007). The Examiner observes in Section 4 of the pending office action that Kobayashi *et al.* disclose an isolated nucleic acid sequence fragment that encodes a nitrilase enzyme, which sequence:

- i) would hybridize to SEQ ID NO:5 under the stated conditions,
- ii) encompasses the completely complementary strand; and
- iii) is 71.274% identical to SEQ ID NO:5.

The Examiner also observes that Kobayashi *et al.* disclose expression of the nitrilase in an *E. coli* host cell using suitable regulatory sequences.

Applicants' previous arguments were not found persuasive as the Examiner contends that the sequence of Kobayashi *et al.* would hybridize under the "highly stringent conditions" of Claim 1, as previously amended.

Reply:

Applicants appreciate the formal withdrawal of the rejection of Claim 2 under 35 USC § 102(b).

Applicants have cancelled Claim 1. Claim 9 has been amended to depend from Claim 2 as amended herein. With the amendment to Claim 9, Claims 11, 13, and 15 now ultimately depend from Claim 2 as well.

In light of the current amendments, Applicants respectfully request the reconsideration of Claims 9, 11, 13, and 15, the withdrawal of their rejection, and their prompt allowance.

Applicants agree with the Examiner that Claim 5 was previously cancelled, specifically in Applicants' submission of 6 June 2003. Therefore, no remarks are made herein to address the text appearing at page 6 of the pending office action.

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Patentability Under 35 U.S.C. §103:

Sections 5, 7, and 8.:

Dependent Claims 16-19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi *et al.* in view of Anderson *et al.* (U.S. Patent 5,935,840).

Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi *et al.* in view of Anderson *et al.* (U.S. Patent 5,935,840), and further in view of Galen (U.S. Patent 6,413,768). The Examiner states herein that Kobayashi *et al.* teach the limitations of Claims 1-2, 9, 11, 13, and 15. The Examiner states that Anderson *et al.* teach the use of chromosomally integrated vectors and ribosome binding sites, and that Galen teaches the use of *E. coli* MG1655.

Reply:

Applicants have cancelled Claim 1. Applicants have amended Claim 2 (on which Claims 16-19, and 46 now ultimately depend) to recite a scope of 95 % identity. Applicants have also amended Claim 9 to provide proper dependency running from Claim 2 to Claim 19 and to Claim 46. The amendment to Claim 2 was made for reasons related to the requirements of 35 USC § 112, first paragraph, and in light of the *Guidelines for Examination of Patent Applications Under the 35 USC 112, I, "Written Description" Requirement*, 66 Fed Reg. 1099, 1106 (Jan 5, 2001).

The Examiner states at page 10 of the pending office action that a rejection of Claim 2 as previously amended (to recite a scope of 90 % identity) under 35 USC § 102(b) "is no longer applicable under Kobayashi since Kobayashi does not teach 90% identity." Since this is the case, a rejection of Claim 2 as currently amended (to recite a scope of 95 % identity) is similarly not applicable under Kobayashi *et al.*

Because Kobayashi *et al.* do not teach or suggest the limitations of Claim 2 (as amended herein), neither do the authors teach or suggest the limitations of Claims 16-19 and 46. Thus, the findings of *prima facie* obviousness of Claims 16-19 and Claim 46 under U.S.C. 103(a) as set out in Section 7 have been overcome for the reasons stated herein and in the previously filed Remarks that are incorporated herein.

Applicants respectfully request reconsideration of the rejected claims in light of the amendments and remarks entered, withdrawal of the rejections for obviousness, and prompt allowance of Claims 16-19 and 46.

Patentability Under 35 USC § 112, first paragraph:

Sections 1, 2, and 11.: Only Claim 2 now stands rejected under the first paragraph of § 112 for lacking a sufficient written description of the claimed subject matter in the specification to convey that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Reply:

Claim 2 has been amended herein to recite sequences encoding a polypeptide with nitrilase activity and having "at least 95% identity" to a polypeptide encoded by SEQ ID NO:5 or to a second nucleotide sequence comprising the complement of the first nucleotide sequence. Basis for the amendment can be found in the specification as filed on page 11, lines 18-27, and on page 26, lines 8-12. The procedures for making such variants of SEQ ID NO:5 are known to those of ordinary skill in the art and the specification describes an assay that will identify other proteins with the claimed enzymatic activity.

In light of the amendments and remarks presented, Applicants respectfully request reconsideration of the application and prompt allowance of all pending claims.

Please contact the undersigned should any matter remain unresolved.

Respectfully submitted,



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